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*THE JOURNAL OF PERIODONTOLOGY* is published to serve as the professional journal of periodontia; to keep dentists in touch with research being carried on in this field and related sciences; to stimulate greater interest in the supporting tissues of the teeth and their relation to oral and general health.

The Journal is the official organ of the American Academy of Periodontology and will contain, therefore, those papers of scientific and clinical interest which are presented at the annual meetings of that society.

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*Ninth Postgraduate Seminar*

THE AMERICAN ACADEMY OF PERIODONTOLOGY

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University of Michigan, Ann Arbor, Michigan

# What is Health?

"Within the limitations of diagnosis good health exists, (1) when the separate organs of the body are functioning within the recognized normal range, and when the integration of their functions permits growth and physical and mental activity within the normal range; (2) when the activity of the micro-organisms for which the body is the natural habitat are sufficiently counteracted so that they are prevented from impairing functional powers; and (3) when the physical and mental stimuli constantly arriving from the environment do not appear to impair structure or function at the moment, and, though individually subliminal, do not appear to be exerting a cumulative effect in impairing them in the future.

'Whatever its imperfections, this definition is, I think, at least realistic. It recognizes that the fight against disease is one aspect of the struggle for existence, like the quest for food and for protection against the violence of Nature. This struggle, so far from becoming easier, must inevitably become harder at every step owing to our inherent moral and physical infirmities, our mortal nature, and the bounds of time and space. We cannot conquer Nature, for the simple reason that we are ourselves part of Nature; we can only come to terms with her, and she drives a hard bargain."

*Extract* from "The Cost of the National Health Service" by Ffrangcon Roberts, M. D., *Reprinted from Brit. Med. J.* No. 4598, 1949

THE JOURNAL OF PERIODONTOLOGY

APRIL, NINETEEN HUNDRED FORTY-NINE

# Nutrition and Dental Health

*Condensed by* DOROTHEA F. RADUSCH, D.D.S., B.A., M.S.
*Minneapolis, Minnesota*

DR. ELVEHJEM has recently reviewed the information on vitamin B complex (*J. A. M. A.* 138:960, Nov. 1948). He states that while most instances of nutritional deficiency can be ascribed directly to insufficient intake, the symptoms produced depend to a considerable extent on the *rate* at which the deficiency develops. He continues with a detailed discussion of each B complex factor including list of food sources. The best thiamine (vitamin B) sources are lean pork and "seeds" like peas, beans, oatmeal, and peanuts.

Riboflavin has more known specificity for oral tissues. If insufficient, it brings about inflammation of the lip, fissures at the corners of the mouth and glossitis. Furthermore it is interrelated with early development of the oral region, wherein lack is associated with cleft palate malformation. The best and most reliable sources are liver, milk, and green leafy vegetables. One serving of liver will provide the daily allowance, one quart of milk the minimum requirement, or one serving of cheese or eggs, one fourth of the daily need.

With man, as with experimental animals, deficiency symptoms are slow to develop after riboflavin deprivation. Sebrell & Butler (*U. S. Pub. Health Rep.* 53:2282, 1938) found even with markedly restricted diets and with subjects who were not very well nourished initially, that three to five months were required before the appearance of demonstrable lesions. It seems likely that very long experimental periods would be required before the consequences of milder deficiency states would become evident.

Dr. Elvehjem states that there is a pronounced beneficial effect on the economy of food utilization from ample riboflavin.

Recent work has established that nicotinic acid (niacin) needs are closely associated with tryptophan (amino acid) consumption. Tryptophan may function as a precursor of niacin and therefore the actual niacin requirements can be established only in relation to protein intake. The effect of high intakes of corn in pellagra incidence are undoubtedly due not only to the low amount of niacin in corn, but to the fact that corn is very low in tryptophan. Again, one serving of liver would supply the day's allowance, while one serving of meat would supply one-half this amount. Milk and eggs are relatively low in niacin but because they are rich in tryptophan, they are valuable precursors.

The lesser known fractions of B-complex are outlined and Elvehjem summarizes as follows:

The availability of the several synthetic water soluble vitamins has been of the greatest value in clinical practice and also for the fortification of certain foods, but the common



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foods still remain the best source of these vitamins in practical nutrition. Aside from the gustatory significance of properly prepared natural foods, the greatest value obtained from their consumption is that they supply the unknown factors along with the known.

He states that in giving dietary advice, it is not enough to stress use of natural foods. The choice of natural foods, that is, the kinds and amounts used, is more important.

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# A Plan For Furthering Medical-Dental Relationships*

Report by the Joint Committee From the Rhode Island Medical Society and the Rhode Island State Dental Society

AT A JOINT MEETING of the Providence Medical Association and the Rhode Island State Dental Society, it was proposed that a committee of physicians and dentists be appointed to study existing medical-dental relations and to present recommendations as to how a state-wide relationship, acceptable to both professions, might function and grow in character and usefulness. This proposal was accepted by the council of the Rhode Island Medical Society and the trustees of the Rhode Island State Dental Society.

## GENERAL TRENDS

Recently the American Medical Association and the American Dental Association appointed a joint committee to promote interrelations of the two professions in education and practice. The Council on Education and Hospitals of the American Medical Association advocated the inclusion of dental departments in hospitals throughout the country, a measure which is supported and emphasized by the Commonwealth Fund in its report on hospital care.[1] The Council on Education of the American Dental Association also supported the measure by setting up standards for hospital dental internships and residencies. Among other suggestions the Commonwealth Fund stated in its report: "Dental examinations, directed toward the discovery and diagnosis of dental and oral infections which may be related to systemic diseases, should be made of all patients admitted to hospitals except when the physician in charge pronounces this procedure unnecessary or impractical."

These general trends indicate emphatically the need for further growth and wider application of the biologic phases of dentistry's procedures. All of this is significant, for it plainly points out why health service to the "whole man" requires the formulation of a program wherein the forces and influences of the medical and dental professions shall be coördinated intimately to solve problems of mutual interest and concern.

## IMMEDIATE OBJECTIVE

The immediate objective of our study was to formulate a plan by means of which the ideals, theories and practices of the two professions might be coördinated so well that it would include all desirable policies.

In order to decide on the most desirable medical-dental relationship and how its component parts may be correlated to function effectively, it is necessary to appraise the structural elements of each profession—their bases of education, teaching, literature, research, practice, legislation and civic relations, and such related activating agencies as universities, medical and dental schools, hospitals, medical and dental societies, medical and dental licensing boards and civic organizations. The present medical-dental relationship is the result of the failure of the two professions to recognize the value

*Reprinted from *The Journal of the American Dental Association*, Vol. 36, Pages 482-486, June, 1948.

Committee report in the form of a commentary with specific and implied recommendations to the Rhode Island Medical Society and the Rhode Island State Dental Society. The entire report was accepted in principle by both societies.

Members of the Committee are: Charles L. Farrell, M.D. chairman; Albert L. Midgley, D.M.D., ScD., secretary; Harold Calder, M.D.; Frank Canning, D.M.D.; Charles Cannon, D.M.D.; James F. Colgan, D.M.D.; Nicholas Migliaccio, D.M.D., and Edward T. Streker, M.D.

[1]Commission on Hospital Care, *Hospital Care in the United States*, New York; Commonwealth Fund, 1947.

and significance of a more desirable and potent combination of these basic and activating agencies.

### CLOSE RELATIONS ARE ESSENTIAL

Available data indicate that intimate coöperation between the two professions is essential for the promotion of the public welfare. Dental students and some dentists should have a better medical understanding, and medical students and some physicians should have a better dental understanding. Close relations between dental and medical schools, and between dentists and physicians, for teaching, research and service are fundamental. Therefore it follows that favorable conditions for close collaboration between medical and dental practitioners are much to be desired.

### COOPERATIVE SERVICE

*Relationship* is only an idea until it is put in practice. Medicine and dentistry already have similar motives and similar aspirations. They need only a comprehensive program of coöperative service to coördinate the two professions intimately in spirit and in deed. Their patient's needs will bring them together and inspire them with mutual confidence and respect, which will result automatically in consultations, investigation and research. The more scholarly members of each profession will read the literature of the other profession. In areas remote from professional schools the medical and dental societies may combine to sponsor courses arranged by colleges and affiliated hospitals.

Dentists and physicians everywhere should become aware that many of their problems are interrelated. They should become more proficient in applying the medical sciences to their interrelated problems, become so familiar with diagnosis that they can recognize the significance, local and systemic, of dental and oral pathology, and become so zealous to maintain health that they welcome the privilege of coöperative service. Thus they would enhance the value of their special knowledge and skills in the maintenance of health, the prevention of disease and the cure of illness.

### BROADER KNOWLEDGE

All dentists should possess sufficient knowledge of medicine and clinical medicine to observe and appraise their patients' abnormal conditions and to be able to speak competently when advising consultations with physicians. Such knowledge of clinical medicine by dentists would result in closer and more intelligent coöperation with physicians. Dental and medical practitioners thus would render health service on a broader basis. Such knowledge would enable dentists to read medical literature profitably, to participate in public health work effectively, and to coöperate actively in consultations with physicians.

If a dentist has adequate knowledge of the values of clinical medicine he often is able to detect early symptoms of ill health outside the range of oral treatment in his patients and to refer them to their physicians for timely medical attention. Physicians and their patients would benefit similarly if all doctors were instructed in the principles of clinical dentistry.

Physicians should know the simple and basic facts of dental structure and development. They should note dental defects and diseases and consult with dentists about the advice which should be given for the prevention and treatment of dental diseases and defects. Courses of instruction under university control for medical and dental practitioners should imitate the pattern of undergraduate professional education.

The biologic sciences are a common foundation for both medical and dental education. The two types of professional education should be coördinated effectively in universities, if each division is to meet fully its obligations in the training of professional personnel; both medicine and dentistry should be included in close coördination in all health service centers. Once the role of the teeth and oral tissues in the maintenance or impairment of health is recognized, the general neglect in medical education of these parts of the body will cease. When medical undergraduates and physicians receive adequate instruction in these subjects, the public will have more efficient health service.

Practical instruction and experience for medical and dental practitioners are linked with the schools and their hospitals in the areas with medical and dental schools. In states without professional schools further instruction and training for physicians and dentists should be available in courses operated under the auspices of the universities or colleges of arts in these areas, through their extension departments and their affil-

iated hospitals, and with the help of professional societies.

Adequate didactic and clinical instruction in medicine, surgery and associated specialties such as cardiology, dermatology, urology, hemology, pediatrics and nutrition may be given to dentists in states with neither medical nor dental schools by visiting members of faculties of nearby medical and dental schools, by physicians, dentists, research workers and other qualified persons. This was done a few years ago when the faculties of Harvard and Tufts dental schools conducted courses sponsored by the state dental society under the auspices of Brown University's biology department.

Certain phases of didactic and clinical instruction may be given by means of round-table discussions, demonstrations, conferences and so forth, under the sponsorship of professional societies, in state medical society libraries and other suitable places.

### BROADER SCOPE

Opportunities for broadening the scope and usefulness of the medical-dental relation occur chiefly in hospitals and in daily coördinated practices of physicians and dentists. These two sources—hospital service and private practice—should promote the public welfare and elevate the two professions in public respect and appreciation. The ensuing results will give a richer meaning and a deeper significance to the phrase "medical-dental relationships."

### CLINICS

A hospital with a well organized medical-dental clinic and staff is essential to any program which requires an atmosphere of scientific and professional learning. A good medical clinic should be established in every general hospital to examine the patients referred to it from the operative dental clinic and other clinics in the hospital; to afford direct and frequent contact of dentists with clinical medicine and joint discussions by physicians and dentists of diseases and problems of mutual interest and concern, and to improve medical and dental practices by means of referrable cases and consultations.

Close geographic and intellectual relations of dental and medical schools and societies with hospitals and their various clinics are essential. This is especially true in the case of health service for children.

### DENTAL DEPARTMENTS

In some hospitals the dental departments tend to become outmoded and their programs are restricted, organized and operated under old-fashioned methods of education and practice. With the dynamic potential that the present day has brought to dental education through extended teaching of the basic sciences and application of their principles, most hospitals should improve, expand and reorganize their dental departments to equal their medical departments in teaching, research and service.

Some of the problems of reorganization are to ascertain what the activities of the dental department should be and how they may be coördinated effectively with medical and surgical services and with the special fields of practice, research and utilization of laboratories. These problems must be solved by the combined wisdom of hospital administrators, their medical and dental staffs and state medical and dental societies.

### RESEARCH

*Research* means repeated systematic efforts to extend the boundaries of knowledge at a particular point of inquiry. Occasionally research may be conducted by ordinary means, but in most instances it requires application of complicated and exacting methods. In medicine and dentistry application of the basic sciences to clinical problems has been the most fruitful research procedure. More coöperation between physicians and dentists would result in increased clarification of problems of mutual concern and undoubtedly would stimulate research for the solution of such problems. Oral and published discussions by practitioners would guide competent workers in research to desirable endeavors. Such research could be given special attention in hospitals.

### JOINT RESPONSIBILITY

Obviously medical and dental societies should operate in close relationship with the hospitals and coöperate to the mutual advantage of all. Such affiliations are of vital importance in an efficient health service program, which cannot be operated successfully without coöperative support by both professions. It is the responsibility of the

medical and dental societies to set up educational programs by means of which dentists may collaborate with physicians in such fields as pediatrics, dermatology, nutrition, cardiology and internal medicine—to name only a few—in order to acquire the practical knowledge and understanding that would enable them to look after their patients' welfare more effectively.

As a preliminary to accepting this joint responsibility the two professions should consider the scope and content of an adequate education and training for medical and dental practitioners, where and by whom it should be given and what form it should take. There may be seminars, round-table discussions, conferences, prepared essays, programs for study and discussion at separate or joint meetings of the medical and dental societies. Such studies and discussions naturally would stimulate the preparation of articles and editorials of common interest and would raise the question of the dental society's relation to state medical society journals.

As for a professional literature, the means at hand are not inadequate. Essays and editorials of common interest and concern, reports which feature histories of interesting cases and thought-provoking essays may well be published in medical and dental journals with the cost equitably shared by the medical and dental societies. The use of medical and dental books, as well as of buildings where professional activities may be promoted, should be granted cordially by the universities and colleges, hospitals and state medical libraries. For the general public, medical and dental health programs should be offered regularly in schools, welfare organizations and community centers and advertised in newspapers, magazines and radio talks. Health programs, sponsored by competent and up-to-date physicians and dentists, will command a considerable amount of public interest.

When the basic science examinations are conducted by a separate agency, as is being done now in certain states, the practical advantage of joint conferences of medical and dental licensing boards may be perceived. Clearly the united influence of the two professions should be a potent factor in supporting state bureaus of education to bring about the exclusion of hybrid types of medical and dental education. The professions also should assist the medical and dental licensing boards in preventing violations of medical and dental statutes.

This plan of coöperation should begin its effective functioning in the immediate future. The committee feels that acceptance of this report and its recommendations, set forth in expository form, could bring about more referrals, more consultations, better understanding and closer contacts, both professional and social. Also, it should develop wider knowledge and better application of the biologic phases of medicine's and dentistry's interrelated procedures, assure intimate understanding of the dignity and importance of each field of practice, and thus preserve the autonomy of medicine and of dentistry through a philosophy of coördination without subordination. Plainly a better integration and use of the basic sciences in clinical medicine and dentistry are destined to illumine the way toward the discovery of biologic secrets as yet undisclosed.

The committee takes this opportunity to thank the following persons for the suggestions derived from their writings on the subject, since they were of help in drawing conclusions: Edgar V. Allen, M.D., associate professor of medicine, Mayo Foundation Graduate School, University of Minnesota, Rochester, Minn.; Virgil D. Cheyne, D.D.S., Ph.D., professor of pathology, The State University of Iowa, College of Dentistry, Iowa City; William J. Gies, M.S., Ph.D., professor emeritus of biochemistry, Columbia University Medical School, New York; John A. Kolmer, M.D., professor of medicine, Temple University, Schools of Medicine and Dentistry, Philadelphia; John Oppie McCall, A.B., D.D.S., former director of the Murry and Leonie Guggenheim Dental Clinic, New York; Frederick C. Waite, Ph.D., professor emeritus of histology and embryology, schools of Medicine and Dentistry, Western Reserve University, Cleveland.

# ABSTRACTS OF CURRENT PERIODONTAL LITERATURE*

*(New Series)*

1—Balkwin, H., Reardon, H. S., Winn, J. S., and others: **Relation of lesions of tongue in children to niacin deficiency.** *Am. J. Dis. of Children*, **74**: 657; *Abs.* in *J.A.M.A.* **136(17)**:1112 April 24, 1948.

Tongue lesions and niacin deficiency.—From 1942 to 1945, 60 children with lesions of the tongue were observed at Bellevue Hospital by Balkwin and his associates. Four types of lesions were observed: acute glossitis; glossitis migrans, or geographic tongue; mild swelling of the tongue, and fissures of the tongue. Effect of large doses of niacinamide (nicotinamide U.S.P.) (8 to 20 mg. per kilogram of body weight) were studied, and results were compared with those for an untreated group. Acute glossitides improved spontaneously or after chemotherapy. Of the patients treated with niacin (nicotinic acid U.S.P.) a larger proportion showed improvement (14 of 16) than was observed among patients who received no therapy (4 of 16). In no patient was complete cure effected, although treatment was continued in 2 patients for twenty-six months. Glossitis migrans was unaffected by nicotinamide therapy. Diets of children with changes of tongue were not demonstrably different from the diets of children without such changes. Results support the view that nicotinic acid has a favorable influence on the nutrition of the tongue. They fail to substantiate the view that the lesions of the tongue commonly seen in children are due to nicotinic acid deficiency.

—*Copy*—C. R.

2—Bass, C. C., and Fullmer, H. M.: **The location of the zone of disintegrating epithelial attachment cuticle.** *J. D. Res.* **27**:623, 1948.

The epithelial attachment cuticle is a cuticular membrane which underlies the epithelial attachment and attaches the innermost cells of this tissue to the tooth, whether it is located on the enamel or on the cementum. This cuticle is probably produced or laid down by the cells of the epithelial attachment. Wherever it is located at any time the outer border of the epithelial attachment cuticle is undergoing more or less breaking down or disintegration and as a result stains heavier than the remaining uninjured portion. This heavier staining line or strip may be demonstrated readily on extracted tooth specimens. The authors by means of camera lucida drawings show that the epithelial attachment and its underlying cuticle extend from the zone of disintegrating epithelial attachment cuticle at any given place to the outer border of the remaining intact periodontal fibers. The variation of the recession of the soft tissues attached to the tooth at different locations around it, (as indicated in the illustrations) are in keeping with a local pathological process (periodontal disease) and not with a theoretical physiological process of "continuous passive eruption". —*H.M.G.*

3—Boyle, P. E.: **Constitutional factors predisposing to periodontal disease: Case report of primary alveolar bone atrophy in a dog.** *J. Am. Dent. A.* **37**: 325, 1948.

Boyle reviews the literature of the effect of heredity, endocrine influences, and deficiency diseases on the periodontal tissues. He concludes that the literature indicates that the alveolar bone reacts to systemic influences as does bone in other parts of the skeleton. He, however, reports findings in a dog which showed primary alveolar bone atrophy. At autopsy, evidence was found of extensive pyelonephritis. The parathyroid glands showed compensatory hyperplasia. The alveolar bone of the maxilla was replaced with greatly thickened bone of extremely poor quality. The molars had been exfoliated. Radiographically, the lamina dura had disappeared and the normal bone architecture was replaced by a cotton wool appearance. The central part of the hard palate was normal. In the mandible, also, the lamina dura was absent; there were several cyst-like areas. The right side of the mandible showed a pathologic fracture. The histologic study revealed that the alveolar bone was partially replaced by abnormal bone trabeculae and fibrous tissue. The other parts of the skeletal system were unaffected.

—*H. M. G.*

* Abstracts supplied by Drs. Celia Rich and Henry M. Goldman.

4—Beham, Hillel and Herbert, Perr: **Stomatitis due to streptomycin.** *J. A. M.A.* **138(7):**495-6, Oct. 16, 1948.

Report deals with three cases of painful stomatitis which developed during treatment of tubercular conditions with streptomycin. Cases were men between 47 and 55 years of age with pulmonary and extra-pulmonary involvements. The stomatitis appeared as a rather late reaction, from five to twelve weeks after first administration of the drug, but oral clinical picture was almost identical in the three cases; painful, erosive and membranous stomatitis involving entire oral mucous membrane including undersurface of tongue. In two of the patients there was also a mild cutaneous eruption, the only additional toxic symptom. All of the lesions disappeared promptly on discontinuance of the drug and, to further confirm the diagnosis of streptomycin sensitivity, the same symptoms reappeared promptly in each case when treatment with streptomycin was resumed. —*C. R.*

5—Cobe, H. M.: **Vincent's infection; experimental reproduction of lesions and the role of streptococci.** *J.A.D.A.* **37:** 317, Sept. 1948.

This paper comprises a review of some of the earlier historical work and a discussion of the experimental work conducted over a period of years in the author's laboratory. The main body of the experimental work emphasizes the etiologic role of the oral streptococci and the experimental use of animal inoculation to reproduce ulcers of various types which are similar to, if not identical with, those found in cases of ulceromembraneous gingivitis and stomatitis.

The author believes that the combination of F. dentium and Bor. vincenti is the causative agent in ulceromembraneous gingivitis.

Positive smears, sufficient to justify a bacteriologic diagnosis of ulceromembraneous gingivitis or stomatitis, were obtained from 86 per cent of all patients taken at random and without regard to the clinical condition of the mouth. The clincial picture of gingivitis or periodontal disease, or other clinical signs, in addition to the bacteriologic diagnosis, are necessary before a positive diagnosis can be made.

The role of oral molds is not clearly defined, but they should not be dismissed as incidental contamination. Possibly they should be regarded as symbiotic agents which are capable of maintaining a lowered oxygen level.

Animal experimentation with various organisms in combination with F. dentium; F. dentium and Bor. vincenti; and F. dentium, Bor. vincenti and streptococci produced various types of abscesses in guinea pigs.

Pulmonary lesions, except those of pneumonia, could not be reproduced experimentally without including a streptococcus. Typical bronchiectasis, lung abscess, and gangrene were produced by combinations of streptococci and other organisms isolated from the lesions of Vincent's infection.

—*H. M. G.*

6—Furstenberg, A. C.: **Diseases of the salivary glands.** *J.A.M.A.* **136(1):**1-4 Jan. 3, 1948.

The author limits his discussion to parotid and sub-maxillary glands, the etiologic factors in their inflammation, and the effective therapeutic agents for their treatment. Various chronic infective granulomata are described, also the disfunction of the glands and the treatment thereof. The commonest neoplasm found is the mixed tumor and it should be watched because it is prone to carcinomatous alteration especially when tumor is of the soft type. —*C. R.*

7—Gratzinger, M.: **Dynamic irritation as a cause of periodontal disease and the means for its elimination.** *J. Am. Dent. A.* **37:**294, 1948.

Gratzinger believes that the term "traumatic occlusion" or "traumatogenic occlusion" should be replaced by the term "dynamic irritation," since the damaging effect to the periodontal structures does not have the character of a traumatic injury nor is it caused by some definite type of occlusion. He states that the damage to the periodontal tissues is the effect of a force active for a long period of time. It is a chronic irritation. Since forces which are not related to occlusion constitute the source of this irritation, the term "dynamic irritation" seems to be correct in its meaning and encompasses the entire physiopathologic problem.

Vertical force within physiologic limits, that is, force parallel to the long axis of a tooth, is not irritating but stimulating and contributes to the health of the normal tooth

supporting apparatus. Lateral force causes dynamic irritation.

There are two sources for the development of lateral force: the muscles of mastication, and the lack of balance between the retentive power of muscles of cheeks and lips and the force derived from the muscles of the tongue.

Dynamic irritation resulting from the action of the masticatory muscles may be introduced by malposition of opposing teeth, improper axial inclination, loss of contact points and failure of the denture to mature so that cuspal interference and incisal overbite persist. A change in occlusion as a result of the mesial movement of the mandible is primarily responsible for the development of excessive lateral force.

Lateral forces causing dynamic irritation are not developed during actual mastication but during the action of the masticatory muscles during sleep when they are out of control.

Lack of balance between the muscles of the tongue and the muscles of the cheeks and lips causes continuous development of lateral force. Therefore, the effect is extremely serious and damage to the periodontal tissues progresses rapidly.

In addition to the routine treatment of periodontal afflictions, consisting of scaling, irrigation, and later elimination of pockets and institution of appropriate mouth hygiene, the dynamic irritation, if present, is to be eliminated by the following methods:

In the case of dynamic irritation caused by cuspal interference and deep overbite, the following methods should be used: 1. Selective grinding of occlusal surfaces in the molar and bicuspid region is accomplished. 2. In order to eliminate incisal contact and deep overbite, the bite is opened as an orthodontic procedure with the aid of a bite plane. After the bite is opened to the desired extent, the bite plane is worn continuously at night only as a retainer and in order to eliminate any noxious effect of the nightly activity of the masticatory muscles.

In the case of dynamic irritation caused by lack of balance of muscles of the tongue, lips, and cheeks, the following methods should be used: 1. Teeth which have migrated are brought back into their normal position and axial inclination by appropriate removable orthodontic plate appliances. 2. Muscle exercises are introduced in order to strengthen the muscles of the lips and cheeks. 3. After the necessary movement of teeth has been successfully performed, the teeth are held under continuous retention, which can be reduced as the strengthening of the muscles of lips and cheeks progresses.

The reviewer believes that this article should be read in toto for the author brings out many points of interest. —*H. M. G.*

**8**—Lyons, H.: **Acute necrotizing periodontal disease: an appraisal of therapy and a critical criterion.** *J.A.D.A.* **37**:271, Sept., 1948.

Lyons believes that a new criterion should be set up as the standard by which methods of treatment of the acute necrotizing periodontal disease can be evaluated. The criterion, he believes, is the preservation without deformity of the normal gingival papillae. Avoidance of tissue deformity by a destructive disease obviously depends on its instant abortion.

Experience has demonstrated that early debridement of these incubation zones—careful instrumentation to open, cleanse, aerate and irrigate the focal incubation zones—instantly will abort the acute necrotizing periodontal diseases. The irrigation of the focal zone is accomplished automatically by the hemorrhage that is induced by careful instrumentation. Several things are accomplished at the same time. A more vigorous circulatory response, which the involved tissues lack, is excited; the zone is washed from its deeper recesses outward, and a blood clot is left in the site as nature's best dressing and the sine qua non of healing. Debridement of the focal zones, augmented by frequent saline washes, good hygiene, and the supportive care which should feature the treatment of any infection, afford results more quickly than have been reported for other methods and with a maximum degree of tissue preservation. The over-all healing time varies with the healing properties of the sufferers, but the abortion of the destructive disease process is attained instantly by the recommended method. It is important to recognize (1) the abortion of a destructive disease process and (2) the healing and repair of tissue damage as two distinct phases of the response to treatment of disease. —*H. M. G.*

9—Martin, Chas. L. and Carleton Wright: **Treatment of cancer of the face, mouth, and neck with irradiation.** *J.A.M.A.* **134(10)**:861-67, July 5, 1947.

In the southwestern states where cancer of the skin is very common, constituting about 30% of all malignant lesions, the incidence of cancer of the mouth is also very high. In a large unselected group of patients with advanced cases, results of irradiation therapy were very satisfactory. All teeth adjacent to the treatment zone should be removed and gums be healed before treatment by radiation is commenced. Other details of handling of cancer of oral mucosa are well described. Drs. Lyell C. Kinney and Harry Ullman, Tibor de Cholonoky and L. Henry Garland discussed the paper.

—*C.R.*

10—Orban, B.: **Clinical and histologic study of the surface characteristics of the gingiva.** *Oral Surg., Oral Med., and Oral Path.* **1**:827, Sept. 1948.

Orban investigated the characteristics of the "normal" gingiva. Photographs in color and specimens for biopsy were obtained from thirty patients. The author used the following definitions:

1. *Gingiva:* that part of the oral mucous membrane surrounding the teeth and adapted to resist masticatory stresses.

2. *Alveolar mucosa:* covering of the alveolar process extending to the fornix of the oral vestibulum and on the lower jaw to the sublingual sulcus, loosely attached to the bone (replaced on lingual surface of upper jaw by palatine mucosa).

3. *Mucogingival junction:* a scalloped line separating the gingiva from the alveolar mucosa.

4. *Attached gingiva:* that part of the gingiva that is firmly attached to the underlying tooth and bone and stippled on the surface.

5. *Interdental grooves:* vertical grooves in the interdental area of the attached gingiva.

6. *Free gingiva:* that part of the gingiva that surrounds the tooth and is not directly attached to the tooth surface; the outer wall of the gingival sulcus.

7. *Free gingival groove:* shallow line or depression on the surface of the gingiva between the free and attached gingiva.

8. *Interdental papilla:* that part of the gingiva that fills the interproximal space between two adjacent teeth, consisting partly of attached and partly of free gingiva.

9. *Margin of the gingiva:* the coronal border of the free gingiva.

10. *Marginal gingiva:* that part of the free gingiva that is localized at the labial, buccal, and lingual aspects of the teeth.

Orban summarizes his findings as follows:

*The free gingival groove.*—The gingiva can be divided into the "free gingiva" and "attached gingiva". The dividing line between these two parts of the gingiva is the "free gingival groove" which runs parallel to the margin of the gingiva at a distance of 0.5 to 1.5 mm. The free gingival groove is, on histologic section, a shallow V-shaped groove corresponding to a heavy epithelial ridge which divides the "free" from the "attached" gingiva. The free gingival groove develops at the level of, or somewhat apically to, the bottom of the gingival sulcus. In some cases the free gingival groove is not as well defined as in others, and then the division between the free and attached gingiva is not clear. The free gingival groove and the epithelial ridge are brought about by functional impacts upon the free gingiva folding the movable free part back upon the attached and immovable zone.

*Stippling of the surface.*—The attached gingiva is characterized by high connective tissue ridges elevating the epithelium, the surface of which appears stippled. Between the elevations there are small depressions which correspond to the center of heavier epithelial ridges and show signs of degeneration and hornification in their depth. The stippling is most probably an expression of functional adaptation to mechanical impacts. The degree of stippling varies with different individuals. The disappearance of stippling is an expression of an involvement of the attached gingiva in a progressing gingivitis.

The *mucogingival line*—The scalloped line separating gingiva and alveolar mucosa is caused by the difference in their structure. The attached gingiva is stippled, firm, thick, and lacks a separate submucous layer, is immovably attached to the bone, and has no glands. The gingival epithelium is thick and hornified; the epithelial ridges and the papillae of the lamina propria are high. The

alveolar mucosa is thin and loosely attached to the periosteum by a well-defined submucous layer of loose connective tissue; it may contain small mucous glands. The epithelium is thin, not hornified, and the epithelial ridges and papillae are low, and are often entirely missing. The structural differences also cause the color difference between the pale pink gingiva and the dark red lining mucosa.

*Interdental grooves and folds.*—The attached gingiva appears slightly depressed between adjoining teeth, corresponding to the depression on the alveolar bone process between eminences of the sockets. In these depressions the attached gingiva often forms slight vertical folds.

The *interdental papilla.*—The interdental papilla is that part of the gingiva that fills the space between two adjoining teeth and is limited at its base by a line drawn from the margin of the gingiva at the center of one tooth to the center of the other. The interdental papilla is composed of free gingiva and attached gingiva in various relations, depending largely upon the topographic arrangement of the neighboring teeth.

*Marginal gingiva.*—A differentiation between the interdental papilla and marginal gingiva is based on clinical considerations. The marginal gingiva is that part of the free gingiva which is localized to the labial, buccal, and lingual aspects of the teeth.

The reviewer believes that every dentist should read this article for the findings of the report serve as a basis for an understanding of the pathologic tissue changes he encounters in his everyday practice.

—*H. M. G.*

**11**—Parma, C.: **Research on prehistoric jaws.** *Paradentologie,* **4**:123, 1948.

Parma examined 47 prehistoric jaws from the National Museum in Prague and 98 prehistoric jaws from the Country Museum in Brno. Among those 145 jaws, 3 were paleolithic and 3 neolithic. In addition he studied the complete collection of plaster models of fossil skulls in the Governmental Dental Institute in Prague. He concludes that prehistoric man was not affected by parodontosis, but by a traumatic gingivitis and parodontitis. He differentiates between the attrition of the teeth in the paleolithic and the neolithic skulls. In the former the teeth are worn equally horizontally bucco-lingually, while in the latter the attrition is such that the buccal cusps of the mandibular teeth and the palatal cusps of the maxillary teeth are abraded. —*H. M. G.*

**12**—Perint, J.: **Detailed roentgenologic examination of the blood supply in the jaws and teeth by applying radiopaque solutions.** *Oral Surg., Oral Med.,* and *Oral Path.,* **2**:2, Jan. 1949.

The aim of this report was to examine the blood supply of the jaws and teeth. The following material and methods were used:

A. Macroscopic examination with opaque substances:

1. In animals: cat, dog.
2. Dead infants.

B. Microscopic examination with opaque substances:

1. Jaws of cats.
2. Tongues of cats.
3. Jaws of infants.

C. Macroscopic examination of decalcinated human jaws.

D. Histologic examination of decalcinated human teeth.

E. Examination of the extirpated human pulp.

The material is prepared by washing out the blood and filling the vessels with a suitable substance. Perint used Hauck's opaque solution for injection. Composition of Hauck's solution is as follows: Lead compound minium 60 gr., petrolatum 45 gr., and turpentine oil 130 gr. This is a suspension to be shaken before use. The following conclusions were made by the author:

Around the crowns of developing teeth there is a vessel ring which, in the course of development, is transformed into an interdental meshwork. Obviously, the branch entering through the apex into the pulp is derived from this meshwork.

The extraosseous blood supply of the mandible is provided by a branch of the masseteric artery, which is given off at the base of the coronoid process. This branch is almost invariably present. The coronoid process of the collum is provided by small branches of the internal maxillary artery. The anastomoses between these osseous branches and the mental artery are visible on the films also.

Besides the extraosseous vessels, also branches of the external maxillary artery

pass to the inner aspect of the angle of the mandible. The outer surface of the angle is supplied by the transverse facial artery or, occasionally, by direct branches of the external carotid. The part of the mandible corresponding to the trigonum retromandibulare is likely to receive blood from the mylohyoid branch. These accessory vessels cannot be demonstrated in all cases or all ages. It is their very presence and their developmental degree by which the ultimate construction of the jaws is determined.

Circulation is different in the cortex and the spongiosa. In the spongiosa the vessels pass between the trabeculae at about equal distances. In the cortex the vessels follow the Haversian bone meshwork and Volkmann's canal system. They are connected with the periosteum and the bone marrow alike. The arteries are everywhere accompanied by veins.

Essentially, the blood supply of the jaws has two sources. Large or small vessels perforate the cortex and divide in the bone marrow. These vessels provide the spongiosa and the marrow. The other group furnishes blood chiefly to the cortex. They are derived from periosteal arteries and enter the bone substance as arterioles or prearterioles through the opening of Volkmann's canals facing the periosteum.

This double blood supply is not separated, as the collaterals form anastomoses between them. The distribution of the two arterial systems within the bone depends on the bone structure. Particular importance is to be attributed to the ratio of the cortex to the spongiosa, the size of the marrow spaces, and the increased blood supply of the articular processes. —*H. M. G.*

**13**—Query: **Recurrent ulcers of the mouth.** *J.A.M.A.* **136(6)**:433, Feb. 7, 1948.

Man aged 21 has had treatment for six months for recurrent ulcers of inside of lips and tongue which last seven to ten days and reappear in from four weeks to three months. Lesions are round, punched out, grayish, deep and painful with occasional bleeding. Vitamins, ultra violet rays have been used; smears and cultures and a gastro-intestinal series all were negative. Attacks are all preceded by constipation.

Answer is essentially a differential diagnosis with the conclusion that the present case is most likely periadenitis mucosa necrotica recurrens, which occurs on tongue, lips and cheeks, lasts one to two weeks and follows a papular onset. Etiology of such aphthous ulcers is uncertain. Emotional, allergic, psychic, toxic, and gastro-intestinal causes should all be considered as possibilities. The following empiric methods of treatment are suggested; one of the atropine-like drugs routinely after meals or during constipation, to interrupt neurogenic influence; mild saline laxative at bed time; high vitamin (multi-vitamin concentrate plus 100 mg. nicotinamide per day) for several weeks; and applications of 10% butyn or acriviolet. If above are ineffective, consult a neuropsychiatrist. —*Copy*

**14**—Query: *J.A.M.A.* **136(10)**:732, March 6, 1948.

Is there any characteristic staining or other significant change in the teeth of diabetics?

Answer: None that can be attributed to diabetes alone. In coma or in states of severe acidosis the oral mucous membranes become dehydrated and cherry red with accompanying loosening of teeth, which symptoms disappear on treatment. Greater caries susceptibility, increased calculus deposits, with "pyorrhea", are associated with diabetes mellitus but not characteristic of it.

—*Copy*

**15**—Query: *J.A.M.A.* **136(6)**:434, February 7, 1948.

Diagnostic problem in acute stomatitis. Man of 54 has acute stomatitis with large ulcers, conjunctivitis, glossitis and cheilitis, of sudden and violent onset. Roof of mouth, pharynx, gums and angles of mouth are affected. Patient has had three such attacks at intervals of four to six weeks which run a course of about ten days and clear spontaneously.

Answer advises (1) let patient keep exact record of food intake—and of any medication; (2) make detailed allergic study and analysis; (3) get smears and cultures from oral blebs and ulcers; (4) have a "review of the oral mucosa" by a specialist in oral medicine. A summary of all the above should indicate the line of therapy to follow.

—*Copy*

**15**—"Queries and Minor Notes": **Diabetic teeth.** *J.A.M.A.* **136(10)**:732, Mar. 6, 1948.

There is no characteristic staining of the teeth of diabetic persons and no significant changes in the teeth that can be attributed to diabetes alone. Diabetic persons in coma or severe acidosis will have dehydrated, cherry-red oral mucous membranes with loosening of teeth. These changes disappear on treatment.

Greater susceptibility to caries, pyorrhea and deposits of tartar about the teeth are associated with, but are not consistently characteristic of, diabetes mellitus.

**16**—Robinson, H. B. G., and Kitchen, P. C.: **The effect of massage with the toothbrush on keratinization of the gingivae.** *Oral Surg., Oral Med.,* and *Oral Path.* **1**:1042, 1948.

The toothbrush is used to massage the gingivae, as well as to act in cleansing the accessible surface of the teeth. To study the results of experimental massage, a study was undertaken on a group of forty dental students, ranging from the age of 21 to 37 years. Eighty-two per cent were between the age of 21 to 25 years. The gingiva of the six maxillary anterior teeth of each student was carefully examined at x7 magnification with the aid of a wide-field binocular microscope mounted in a special stand with a chin and forehead rest. Notes were made on the color, texture, visibility of capillaries, and the presence of any areas of abrasion in each subject. Preliminary biopsies of the upper anterior gingival tissues of ten subjects were taken 30 days before the subjects began the experimental brushing. Each individual was given the following written instructions: Brush your teeth as usual. Follow this up with 14 strokes as follows: Place the brush with bristles up into the vestibule in the upper anterior area, from cuspid to cuspid, and sweep downward bringing the bristles over the gingivae with your ordinary brushing pressure. Use only the brush and dentifrice supplied. If at any time you miss one of your brushings, please record this and report it at the end of the period. The authors came to the conclusion that brushing the gingivae increases keratinization of the surface epithelium. It was interesting to note, however, that seven of the forty coöperators developed areas of abrasion or of gross hyperemia. —*H.M.G.*

**17**—Schluger, S.: **Necrotizing ulcerative gingivitis in the army; incidence, communicability and treatment.** *J.A.D.A.* **38**:174, 1949.

Schluger studied 90 cases of necrotizing ulcerative gingivitis intending to show, with supporting presumptive evidence, that the usual mechanics of transmission of an infection did not hold true in necrotizing gingivitis. Proximity, intimacy, and possible contamination did not seem to be factors, but general health, tissue resistance, fatigue, and oral hygiene were definite and important criteria in the incidence of the disease. No spread of the infection was to be found under conditions in which groups of men lived in close contact and in which the infected persons used none of the usual precautions. In recorded cases the disease responded quickly and completely to a treatment which was not bactericidal by rehabilitating, that is curettage with subsequent use of a mouthwash. —*H.M.G.*

**18**—Veatch, H. C., and Young, J. K.: **Sedimentation rates in periodontal disease: changes in rates after surgical treatment.** *J.A.D.A.* **37**:580, Nov. 1948.

Veatch and Young investigated the value of the sedimentation rate as to its usefulness in evaluating the results of periodontal therapy. An attempt was made to determine (1) whether inflammatory periodontal disease (marginal periodontitis) is accompanied by an increased sedimentation rate, and (2) whether a patient with an increased sedimentation rate will show a decrease in rate after surgical treatment (gingivectomy with removal of septal bone when involved) of the periodontal condition.

Of the 104 patients with periodontal disease who were investigated, 71 were apparently free from systemic conditions influencing the sedimentation rate. Of these, 65 cases (91 per cent) were normal in relation to the sedimentation rate. Therefore, it may be concluded that although periodontal disease often is associated with infection and tissue disintegration, it does not appreciably influence the sedimentation rate of the red blood cells.

In 40 of 75 cases (55 per cent) there was little or no change in the sedimentation rate of the red blood cells a month after surgical treatment of the periodontal condition. Of the remaining 33 (45 per cent) about half showed a rise in sedimentation rate; the other half showed a decline. Therefore it may be concluded that surgical intervention usually has little or no effect on the sedimentation rate of the red blood cells but may cause a slight or moderate rise or decline in rate.

In view of these results it may be concluded that determination of the sedimentation rate is not a reliable measure of progress in the treatment of periodontal disease.

—*H.M.G.*

**19**—Henry, Wolfer, M.D., Irving, Hirshleifer, M.D., and Raymond Shapio, D.D.S. **Treatment of tuberculous ulcer of the tongue with streptomycin,** *J.A.M.A.* **136(4)249:**50, 1948.

There are comparatively few tuberculous tongue lesions. The authors list five types. Case is described of tuberculous ulcer of the tongue of long standing which responded satisfactorily to treatment with streptomycin administered parenteraly. The lesion had become progressively worse before this treatment was instituted.

—*C.R.*

**20**—Zakon, S. J., Goldberg, A. L. and J. B. Kahn: **Lipstick cheilitis.** Report of 32 cases. *Archives of Derm. and Syphilology* **36:**499 October, 1947. Abs. *J.A.M.A.* **136(6):**423 Feb. 1948.

Zakon and his co-workers report 32 cases of cheilitis in women between ages of 17 and 54 who were seen in one year of practice. Characteristic swelling and edema of both lips appeared after the patients had changed to a new type of lipstick, or the eruption appeared suddenly with continued use of the same brand over a period of months or years. The precipitating factor is the idiosyncracy to, and/or direct chemical irritation from the indelible dyes (bromofluoresciens). The diagnosis was made clinically and treatment consisted of the elimination of the bromofluorescient dyes. A lipstick was substituted which did not contain dibromofluoresciene, tri-bromofluoresciene or tetra-bromofluoresciene. The patients' symptoms disappeared in an average period of two weeks. Photo sensitization is to be considered as negligible. The use of a lipstick with a non-indelible dye is a practical, safe and rapid treatment and offers the solution of this frequent cosmetic problem.

—*Copy*

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"The Rhode Island State Dental Society, under the auspices of Brown University, is committed to giving a course of lectures this spring that will be open to both physicians and dentists and at which prominent members of the faculties of medical schools will discuss oral tumors, blood dyscrasias, nutrition, oral infection and pediatrics, as they relate to the practice of dentistry."

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## In Memoriam

H. H. CLEAVELAND

Feb. 22, 1949

R. R. JOHNSTON

Oct. 5, 1948

DANIEL E. ZISKIN

Oct. 21, 1948

# *Editorials*

## To What Extent is Specialization Justifiable?

THE PURPOSE of specialization is to extend knowledge of a subject and to improve the quality of the service rendered. If greatly extended knowledge and improved service do not result, then the present trend toward specialization should be discouraged.

One can but wonder to what extent the fees charged by specialists influence the younger dentists when making a decision on specialization.

A good general practitioner has many exacting demands on his skill and patience and his ability to handle patients of all ages needing many kinds of service from the young child to the aged.

More encouragement and appreciation of the general practitioner of dentistry are called for. His hours are long and exhausting and his skill must be versatile; his vacations are very short as a rule, for financial reasons or because he cannot leave his patients for a lengthy one. On the other hand the specialist seems to be able to get away from his practice more easily and for longer periods. He is more independent.

Dr. Paul H. Belding in a recent Editorial states "Family practitioners of dentistry, who are the backbone of the A.D.A., should impress on the House of Delegates that specialties whose meetings are not open to general dentists and where limitation of practice is essential are not entitled to the financial or moral support of the American Dental Association." The American Academy of Periodontology has always invited all members of the A.D.A. to its meetings. The next annual meeting (thirty-third) will be held in San Francisco, California, October 13, 14, 15, 1949. You are invited if a member of the A.D.A.

—G.R.S.

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## Why is Compulsory Health Insurance **Not** the Answer?

[Read carefully the Special Supplement to the April issue of the Journal of the American Dental Association for a full explanation of this subject.]

AT PRESENT 70,000 dentists in the United States are kept very busy taking care of 50 per cent or less of the population. How can they then take care of the needs of 100 per cent of the people with their working hours restricted?

There are other needs that should be met first which would improve the health of the low income groups—proper food, and adequate housing are urgent needs.

How can one who is unable now to pay for medical service be able to pay a tax which will be used not only for one's own medical care, but for others in addition to his own as well as the high administrative cost of the proposed program? Yet it is advertised as "free"!

All types of health service will not and cannot be authorized for some time, if ever.

The standard of all types of health service will be lowered both in training and practice.

Further research to discover and to multiply preventive measures followed by education in their application should be first concentrated on. This would be less costly and more effectual in improving health care.

The public does not understand. It is being misled by deceptive phrases, "choice of location," "choice of doctor" and "free" health service.

The A.D.A. Council on Dental Health believes that a *Children's Program* should be a part of any dental program. It is also the most practical. The children of today will be the adults of tomorrow.

Our educational system is breaking down because of lack of teachers on account of low salaries paid. What is to prevent the same situation occurring in dentistry when we are no longer independent?

Most physicians and dentists chose their profession because of a desire to be independent. They are temperamentally unsuited to regimentation. Why should one group of specially educated citizens that has done more to serve the people than most groups be penalized by having its liberty and dignity taken away?

Let us first feed, house, and adequately clothe 100 per cent of the people and pay our National debt before embarking on a costly voyage from which there is no turning back.

There are not enough medical and dental schools or enough hospitals; nor nearly enough physicians, dentists, or nurses. This lack, if corrected would help greatly to minimize the health problem.

We all agree that an improved health service is desirable, but can this be safely trusted to politicians?

—G.R.S.

## The Manual for Dental Editors

The American Association of Dental Editors has just published a *Manual for Dental Editors*. This fills a long felt want. It is clear, concise and prepared for *dental* editors, exclusively. The Manual is sold at cost—$1.50.

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## Announcement

A work shop for dental editors June 27th. "Words, Their Use and Abuse". During meeting of American Association of Dental Schools.

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# News Release on 1949 Survey of the Dental Profession

During April of this year the National Income Division of the U. S. Department of Commerce will mail questionnaires to more than 25,000 dentists in every State in the union, asking for their voluntary coöperation in a survey designed to provide basic information about the practice of dentistry, the gross incomes of dentists, office costs and expenses, net incomes and salaries, etc.

These questionnaires will go to one out of every three dentists in the United States who have been selected in a random fashion within each State in such a manner as to yield a representative cross section of the profession throughout the country. Since the Department is interested only in obtaining over-all summary figures such as totals, averages, and per cents, the forms are completely anonymous, requiring no signature and not being identified in any way.

The Department points out that the returns which dentists have already made for income tax purposes are confidential documents which are not available to the Department of Commerce even for the purposes of the current survey. The Department gives its assurance that the dental questionnaire will also be held confidential, and that the present dental survey is not related in any way to the collection of income taxes. Individual questionnaires will not be made available to any other agency.

This survey of the dental profession, covering the years 1943 to 1948, is being conducted with the wholehearted coöperation of the American Dental Association, having received the full endorsement and approval of the Board of Trustees of the A.D.A. A similar survey, conducted in 1942 under the joint auspices of the A.D.A. and the Department of Commerce, yielded a mine of valuable information, most of which was made available to members of the profession in detailed articles published in the November 1943 issue of the *Journal of the American Dental Association* and in the April 1944 issue of the *Survey of Current Business*, the latter being a publication of the Department of Commerce. The latter article is being sent to all dentists who will receive the current questionnaire. (Dentists who do not receive a questionnaire may obtain a copy of this article without charge by writing to the Office of Business Economics of the Department of Commerce.)

Although the primary purpose of the survey is in connection with the Department's well-known estimates of national state, and per capita income, these surveys have in the past provided valuable yardsticks by which individual dentists could evaluate their own economic situations, and thus obtain a factual, realistic picture of their future earning possibilities. For example, the American Dental Association has found that in numerous instances dentists have made changes in location, organization, or type of practice upon the basis of information provided by past surveys.

Since the last nation-wide survey in 1942, striking changes have occurred both in the national economy as a whole and in the status of the dental profession itself, making it essential to bring the findings of past surveys up to date.

THIRTY-THIRD
ANNUAL MEETING
*American Academy of Periodontology*
OCTOBER 13, 14, 15, 1949
SAN FRANCISCO, CALIFORNIA

## A Letter from President Ball

Dear Friends:

Mom and I are looking forward to seeing all of you at the 33rd annual meeting of the American Academy of Periodontology, in San Francisco, October 13, 14 and 15, 1949.

Dickson Bell, Chairman of the General Arrangements Committee has already worked out every detail for the finest setup we have ever had for our Periodontia Group.

Carlos Schott has his sensational program completed including
Hermann Becks, Scientific Investigation Committee
Howard Hartman, Practical Clinics
Justin Towner and Monte Bettman, Noon Day Luncheon Leaders
Lowell Peterson, Entertainment program.

Every part of these three tremendous days is ready six months in advance. If you want things done, ask a member of the Academy to do it and it is done right now!

San Francisco, Queen City of the Pacific is waiting for you and this fascinating city is at its best in October.

A trip to Hawaii immediately following the A.D.A. Convention is also being planned.

Remember! We only live once and why not enjoy the glorious West with those you enjoy being with the most.

Watch for the unusual program. Mark off the dates now!

We'll be seeing you in San Francisco.

EDDIE BALL

### THE AMERICAN BOARD OF PERIODONTOLOGY

The American Board of Periodontology will hold its examination next summer and fall for certification of dentists expert in the practice of periodontia. The written examination will be held in various cities on July 30th and the oral examination on October 11th in San Francisco or nearby city. Application and case report blanks should be obtained at once by those who desire to take the 1949 examinations. The completed application blank with application fee and photograph should be sent in at once and the completed case reports before June 15th. Correspondence should be addressed to Harold J. Leonard, D.D.S., Secy.-Treas., 745 Fifth Avenue, New York 22, N. Y.

# BOOK REVIEWS

Reprinted (1) from *Journal Canadian Dental Assn.* 14(9):485-6. Sept. 1948

***Surgical Pathology of the Mouth,*** *by* E. Wilfred Fish, C.B.E., M.D., *Ch.*B., L.D.S., (Manch.), DD.*Sc.* (Melb.), D.*Sc.* (Lond.), F.D.S.R.C.S. (Eng.). Dental Surgeon St. Mary's Hospital, London; Late Dental Surgeon, Royal Dental Hospital, London; Hon. Research Associate in Physiology, Univ. College, London; External Examiner in Oral Anatomy and Physiology, Univ. of Durham; Late Examiner in Dental Surgery and Pathology, Univ. of Manchester. (From the Meyerstein Laboratory of Dental Research, St. Mary's Hospital, Paddington, London). 463 pages, 236 illustrations. Published by Sir Isaac Pitnam & Sons, Ltd., London, England.

From the fact that this book is written by the President of the British Dental Association and a man of international reputation it should find a place in the library of every thinking dentist. It is a scholarly and detailed work on Dental Pathology the fruits of many years of careful study and of critical observation; to use the author's own words, it is "the story of general pathology as a dental man might see it." Dr. Fish contends that pathology has been too much taught from the general or medical side; that dental science has suffered for lack of the close relationship with the general sciences upon which the art of surgical intervention can alone be founded.

Cell growth, Chemotherapy, Pathology of Bone, Cementum, the Pulpless Tooth, the Mucosa, Periodontal Tissue and Enamel are carefully studied, and four chapters are given to the consideration of Neoplasia and Tumours. The colour plates, roentgenograms, photographs and line drawings used for illustration are particularly fine.

Dr. Fish has this to say about the interesting and debatable subject of reattachment in discussing the treatment of a periodontal pocket: "It is important to determine what shall be the precise definition of 'reattachment' and it might clarify the issue if we were to speak of 'keratinous' reattachment and 'fibrous' reattachment. The former may be theoretically and precariously possible if curettage be thorough and persistent enough, but the latter can only take place if new periodontal fibres can be formed above the last remaining one of the old series. For this to happen not only would new fibres have to be formed, and perhaps new bone to secure their distal ends, but these fibres would have to *replace the down growth of epithelium* in order to become reattached to the tooth. For this to be possible it is necessary: (1) to reduce all inflammation in the area; (2) to remove the existing down-growth of epithelium surgically; (3) to maintain apposition of the parts during healing; (4) to maintain asepsis of the area for some weeks while osteoclasts prepare the denuded surface of the dentine and new cementoblasts build in the new periodontal fibres. It would therefore be a more delicate and precise technique than mere curettage oft repeated, but there is no pathological reason why a competent dental surgeon should not attempt it with the aid of penicillin. There are plenty of practical difficulties to prevent his succeeding."

Dr. Fish has this to say also about Vincent's Infection: "There is no doubt that many dental surgeons have regarded this disease as infectious and gone to great lengths in isolating the sufferers and sterilizing their food utensils. On the other hand many practitioners (including the author) do not impose any restrictions on the patient, and it has not happened in any case of the many hundreds which have come under observation that a second member of the family has developed the disease. This reviewer agrees that this disease is not particularly infectious and therefore places few restrictions upon the patient from this angle.

This book is unique in that it is the first of its kind and should prove most interesting and helpful since it combines so much practical experience with so much careful scholarship.

M. H. G.
(M. Harry Garvin)

***Proteins and Amino Acids in Nutrition.***

By Melville Sahyun, M.A., Ph.D. (Pp. 566; illustrated. £2 5s.) New York: Reinhold Publishing Corporation. London: Chapman and Hall. 1948.

This book is about the all-important role of protein in nutrition, including the consequences of deficiencies of protein and, within the limits of knowledge, of specific amino acids. Consideration is also given to the metabolic interrelations between proteins and carbohydrates, fats, vitamins, and mineral salts. Dr. Sahyun has acted as editor and has written the foreword and the chapter on "Plasma Proteins and their Relation to Nutrition"; the introduction is by H. B. Lewis, and the fourteen other chapters are written by experts in their own particular fields. For example, H. H. Mitchell writes on "The Biological Utilization of Proteins and Protein Requirements," and H. J. Deuel on "Caloric, Vitamin, and Mineral Requirements with particular reference to Protein Nutrition." Although there appears little on protein digestion in the ruminant, the nutritive aspects of meat and meat products are considered, and H. J. Almquist gives an account of the amino-acid requirements of avian species. The special problems associated with pregnancy, pediatrics, wounds, and immunity are considered, as is also the protein nature of toxins, antitoxins, filtrable viruses, and related substances. One of the most interesting chapters is that on the history of the significance of proteins in nutrition.

A compilation by many authors generally lacks unity, but the authors of this book have combined to present a very interesting and useful series of essays which are well knit together. The references are adequate for the purpose, and at the end of the book there are two appendices: (1) "Proximate Composition of American Food Materials"; and (2) "Nutritive Value of 100 g. of Selected Foods, Edible Portion." These have been compiled from U. S. Department of Agriculture publications.

D. P. CUTHBERTSON.

*Reprinted* from Brit. Med. J. Feb. 19, 1949.

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"I would define *reattachment* as the *establishment of an organic connection between connective tissue and cementum in the area of a gingival or periodontal pocket.*"
—B. Orban.

* * *

"This is *the* day when the Health Service Act goes into effect and there is such a turmoil and excitement it might be doomsday. Some dentists look upon it in that light."
*Extract* from a letter written by a dentist in London, England. July 5, 1948.

* * *

The examination of toothbrushes, used by American families, conducted by Drs. Allen O. Gruebbel and J. M. Wisan revealed "that only a small percentage of the American public follows the oral hygiene practices which the dental profession believes are important in maintaining dental health. The remedy for this situation can be found only in an aggressive campaign to inform every individual of the value of the frequent use and renewal of the toothbrush."

TO MEMBERS OF THE AMERICAN ACADEMY OF PERIODONTOLOGY:

The program for the annual spring seminar of the American Academy of Periodontology follows. This meeting will be held in Ann Arbor, Michigan, on May 2, 3. 4, 1949. All members of the Academy are eligible to attend, and the arrangement committee feels that the program should justify a good attendance. The fee for the course is $25.00 and payable with the application or at the time of registration. Those planning to attend this meeting should send such information to Dr. Paul H. Jeserich, W. K. Kellogg Foundation Institute: Graduate and Postgraduate Dentistry, Ann Arbor, Michigan. The applicant should also write to the Michigan Union, Ann Arbor, Michigan, and make a room reservation giving the time of arrival and departure. Make mention of the fact that you are planning to attend the seminar of the American Academy of Periodontology.

Those who have already made application and room reservations need not go through this procedure again.

## The American Academy of Periodontology

### *Ninth Spring Seminar*

### MAY 2, 3, 4, 1949

The following program has been arranged by the Seminar Program Committee of The American Academy of Periodontology and is sponsored by the W. K. Kellogg Foundation Institute: Graduate and Postgraduate Dentistry:

#### MONDAY, MAY 2, 1949

8:45- 9:15 Registration

9:15-10:30 Dr. Willard O. Thompson, Presbyterian Hospital, Chicago, Illinois.
RECENT DEVELOPMENTS IN ENDOCRINOLOGY

10:45-12:00 Dr. Willard O. Thompson, Presbyterian Hospital, Chicago, Illinois.
ENDOCRINE REGULATION OF GROWTH

2:00- 4:30 Dr. Maury Massler, University of Illinois.
DIFFERENTIAL DIAGNOSIS AND NEWER METHODS OF TREATMENT

#### TUESDAY, MAY 3, 1949

9:00-10:30 Dr. Arthur C. Curtis, University of Michigan.
ORAL MANIFESTATIONS OF DERMATOLOGICAL DISEASE

10:45-12:00 Dr. Arthur C. Curtis, University of Michigan.
(CONTINUATION OF ABOVE)

2:00- 3:15 Dr. Joseph P. Weinmann, University of Illinois.
CONCEPT OF INFLAMMATION

3:30- 5:00 Dr. Joseph P. Weinmann, University of Illinois.
HISTOPATHOLOGY OF PERIODONTAL DISEASES

6:00- Dinner at the Michigan League.

7:30- Speaker: Dr. Carl V. Weller, University of Michigan.
PHYSIOLOGICAL CHANGES OF AGING

#### WEDNESDAY, MAY 4, 1949

9:00-10:30 Dr. John M. Sheldon, University of Michigan.
NEWER ASPECTS OF ALLERGIC DISEASE WITH PARTICULAR REFERENCE TO COLLAGEN

10:45-12:00 Dr. John M. Sheldon, University of Michigan.
ALLERGIC DISTURBANCES AS RELATED TO THE ORAL CAVITY

2:00- 4:00 Dr. Maury Massler, University of Illinois.
BULLOUS LESIONS OF THE MOUTH

HAROLD G. RAY, *Committee Chairman*

# Announcements

## Sixth Annual Seminar for the Study and Practice of Dental Medicine

The Sixth Annual Seminar for the Study and Practice of Dental Medicine at Palm Springs, California will follow the American Dental Association Convention set for San Francisco October 17-21. The dates set for the Seminar, October 23-28, are conveniently arranged to enable those persons interested to attend both gatherings.

Applications are currently being accepted, and inasmuch as facilities are limited, early arrangements should be made by contacting Miss Marion G. Lewis, Executive Secretary, 1618 Ninth Avenue, San Francisco 22, California.

Seven outstanding speakers will discuss and compare the most recent discoveries in dentistry and the related fields of medicine and biology. They include: Arthur C. Curtis, M.D., Professor and Director of the Department of Dermatology and Syphilology at the University of Michigan; Wilton Marion Krogman, Ph.B., M.A., Ph.D., Professor of physical anthropology, University of Pennsylvania; Seymour M. Farber, M.D., Assistant Clinical Professor of Medicine, University of California Medical School; Balint Orban, M.D., D.D.S., Professor at the University of Illinois; D. Harold Copp, M.D., who is collaborating with the Division of Dental Medicine at the University of California; Francis A. Arnold, Jr., B.S., D.D.S., Sr. Dental Surgeon, U.S.P.H.S.; and Paul Popenoe, Sc.D., Director of the American Institute of Family Relations in Los Angeles.

President of the Seminar is Dr. Hermann Becks, chairman of the Division of Dental Medicine, College of Dentistry, University of California.

### AMERICAN ACADEMY OF DENTAL MEDICINE ANNOUNCES PROGRAM FOR ANNUAL MEETING JUNE 4-5.

Featuring a number of eminent authorities in psychosomatics and dento-medical fields, the Third Annual Meeting of the American Academy of Dental Medicine will be held at the Hotel Statler (formerly the Pennsylvania), New York, June 4 and 5, it has been announced by Dr. J. Lewis Blass, president. No attendance fee is levied, but advance registrations are essential to proper arrangements.

The opening session, Saturday, June 4, will feature a symposium on psychosomatics. Round table discussions to be held the ensuing day will cover a wide range of dento-medical subjects.

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### THE THOMAS W. EVANS MUSEUM AND DENTAL INSTITUTE, SCHOOL OF DENTISTRY, UNIVERSITY OF PENNSYLVANIA, POSTGRADUATE COURSE IN PERIODONTICS MAY 2-7, 1949

The objective of this basic course is to acquaint the recent graduate and the more experienced practitioner with the importance of periodontics in general dental practice. The various etiologic causes of gingivitis and periodontal disease, their diagnosis, conservative treatment methods, including the significance of systemic and nutritional factors, are presented in detail. Importance of proper treatment planning including patient education and home care are emphasized.

This course includes lectures and clinical demonstrations of different methods of treating patients with various forms of periodontal disease. Upon successful completion of this course, arrangements may be made for continued supervised clinical practice. Fee $150. Enrollment limit—16.

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### INTERNATIONAL ARPA

The 11th congress of the International ARPA will be held at Groningen (Holland) from June 29th till July 3rd, 1949.

We shall be pleased, if colleagues who want to lecture will give notice to the deputy chairman U Vauthier, 12, Bd. du Theatre, Geneva, Switzerland.

The subjects, which will be discussed at this congress, are:

1. Nomenclature and classification.
2. Functional treatment.
3. Orthodontics and Paradentosis.

# THIRTY-THIRD ANNUAL MEETING
## OCTOBER 13, 14, and 15, 1949
## San Francisco, California

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### How About Hawaii as a Post Convention Trip! ! ! !

The possible 49th state of the Union is only a matter of a luxurious cruise from San Francisco on the deluxe liner LURLINE.

**** 5 Days of Sun and Fun and relaxation in First Class staterooms (room with private bath or shower) on this air-conditioned and air-cooled . . . cruise ship.

**** 12 nights in the comfortable MOANA SEASIDE HOTEL (Royal Hawaiian Hotel accommodations if desired at slightly increased rate) rooms with twin beds and private bath.

**** 12 Days to bask in the sun on the world's most famous beach—WAIKIKI.

**** Swim in the refreshing waters of the Blue Pacific—protected by colorful reefs!

**** Watch the natives (or try it yourself) ride the breakers in to shore.

**** Gay festivals . . . See the natives in their interpretation of South Sea legends, and, not the least, see the famous hula dances.

**** Complete sightseeing of the island by private car . . . breath-taking views, unique glass-bottom boat trip, Internationally known and remembered Pearl Harbor and Hickam Field, outstanding Diamond Head, an extinct volcano, University of Hawaii—just to mention a few of the sights.

. . . . then . . . .

**** 5 Days return on the same luxurious ship, sailing the calm waters of the Pacific.

Leave San Francisco Friday—October 14, 1949; return to San Francisco Saturday—November 5, 1949.

ALL OF THIS FOR ONLY . . . $543.00 plus $65.70 U. S. Federal Tax.

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To: DR. EDWARD L. BALL
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Yes, I am interested in the Post Convention Trip to HAWAII and would like to have additional information. I understand there is no obligation.

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